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1 We claim:

2 1. A process for imaging a lithographic printing plate having a presensitizing coating,
3 comprising the steps of:

4 a) blanket exposing said coating; and

5 b) imagewise applying an insolubilizing chemical to said coating.

6 2. The process of claim 1, further comprising the step of heating said coating.

7 3. The process of claim 1 wherein said coating comprises alkali soluble resins

8 4. The process of claim 3 wherein said alkali soluble resins comprise cresol-formaldehyde
9 resins.

10 5. The process of claim 1 wherein said coating comprises o-quinone diazide compounds.

11 6. The process of claim 1 wherein said insolubilizing chemical comprises amine functional
12 groups.

13 7. The process of claim 1 wherein the insolubilizing fluid has a pH greater than 7.5

14 8. The process of claim 1 wherein the insolubilizing chemical is selected from the group of:
15 amines and amine salts.

16 9. A method of using a printing press, employing working fluids in normal operation, to
17 develop a lithographic printing plate having a subtractive coating, comprising the steps of:

18 a) imagewise applying an insolubilizing chemical to said coating;

19 b) mounting said plate on said printing press; and

20 c) operating said printing press such that the unimaged areas of the coating are dissolved in the
21 working fluids.

22 10. A method according to claim 9 wherein said coating comprises acrylate monomers.

23 11. A method according to claim 10 wherein said coating also comprises photoinitiators.

1 12. The method of claim 9 wherein the insolubilizing chemical comprises amine functional
2 groups.

3 13. The method of claim 9 wherein the insolubilizing chemical is selected from the group
4 consisting of: amine salts, amines, or bases.

5 14. A method of imaging a lithographic printing plate having a developable coating comprising a
6 decarboxylatable compound, comprising the step of:

7 applying imagewise to said coating a chemical which facilitates a decarboxylating reaction
8 such that the imaged coating becomes insoluble to the developer.

9 15. A method of preparing a commercially available manufactured subtractive printing plate, for
10 which the manufacturer or a sales representative has designated an associated commercially
11 available developing solution, for press, comprising the steps of:
12 a) applying imagewise an insolubilizing chemical to said plate; and
13 b) developing said plate with said developing solution.

14 16. A method of imaging a lithographic printing plate having a coating comprising monomers
15 and a photoinitiator, comprising the step of:
16 applying imagewise a co-synergist.

17 17. A method according to claim 15 wherein the decarboxylating chemical is selected from a
18 group consisting of: amines, amine salts, acids, and bases.

19 18. A subtractive printing plate, comprising:

20 a) a substrate defining a surface;
21 b) on the surface, a coating comprising one or more chemicals selected from the group of:
22 acrylate monomers, epoxy resins, diazides, decarboxylatable carboxylic acids, and
23 photoinitiators; and

- 1 c) on said coating, an image covering less than the total coated area defining a chemical
- 2 comprising an amine functional group.
- 3 19. A process for preparing for press a printing plate having a coating comprising epoxy resins,
- 4 comprising the step of:
 - 5 applying imagewise to said coating, a solution comprising an amine.
- 6 20. A computer to plate system, comprising:
 - 7 (a) a print head containing a plurality of ink jet nozzles such that the print head is capable of
 - 8 jetting imagewise a solution,
 - 9 (b) a printing plate having a coated surface comprising photosensitive compounds capable of
 - 10 being insolubilized by the solution,
 - 11 (c) a heater capable of heating the printing plate, and
 - 12 (c) a developer capable of dissolving the non-imaged coating.
- 13 21. A computer to plate system, comprising:
 - 14 (a) an ink jet printer with a print head capable of imaging printing plates,
 - 15 (b) an ink capable of insolubilizing a coating containing reaction products of photosensitive
 - 16 compounds,
 - 17 (c) a printing plate having a coating comprising of reaction products of presensitized
 - 18 photosensitive coating.
- 19 22. A computer to plate system according to claim 20, wherein said coating contains sulfonic
- 20 acid esters or amides of carboxylic acids.
- 21 23. The method according to claim 2, wherein the plate is baked to a temperature in the range of
- 22 149° C to 218° C.

- 1 24. The method according to claim 2, wherein the plate is baked to a temperature in the range of
- 2 149° C to 177° C.
- 3 25. A method of preparing a printing plate having a developable coating, comprising a resin and
- 4 a cross-linking agent, comprising the step of:
- 5 applying imagewise an insolubilizing chemical which when applied to the coating causes the
- 6 cross-linking agent to cross-link the resin.
- 7 26. The process of claim 25 where said cross-linking agent is 4,4'-
- 8 bismethoxymethyldiphenylether
- 9 27. The process of claim 25 where said resin is a cresol formaldehyde resin.
- 10 28. The process of claim 25 where said chemical is an acid precursor which on heating generates
- 11 acid.
- 12 29. A computer-to-press system, comprising:
- 13 a) a printing press;
- 14 b) an ink jet printhead containing an insolubilizing fluid; and
- 15 c) an on-press developable printing plate.
- 16 30. A computer-to-press system according to claim 29 wherein said insolubilizing fluid
- 17 comprises an amine.

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